

## CLAIMS :

1. A filter for filtering solid particles from liquids, especially for use in steam condensers and heat exchanger in thermal and nuclear power plants, said filter comprising a housing (4), a screen basket (2) located within said housing (4), a debris discharge pipe (1) for discharging accumulated and captured debris; a debris extractor arm (3) with a curvature towards the screen extending outwards at a predetermined radius with respective vertical plane, the said debris extractor arm (3) being rotatably driven over the entire length of the screen to create a low pressure between the debris extractor arm (3) and the screen (4) for complete extraction of debris and conveying to said debris discharge pipe (1).
2. The filter as claimed in claim 1, wherein the said debris extractor arm (3) is provided with a drive for driving over the entire length of the screen.
3. The filter as claimed in claim 2, wherein the drive is a geared motor drive (5, 6).
4. The filter as claimed in any one of the preceding claims, comprising means for adjusting the distance between said screen basket (4) and debris extractor arm (3).
5. The filter as claimed in claim 1, wherein the end of debris extractor arm close to the screen is provided with a curvature to avoid contact with the screen.

6. The filter as claimed in claim 1, wherein said screen basket (4) has a conical shape.
7. A cooling system comprising an inlet (9) and an outlet (8) for cooling water, a debris filter comprising a housing (4), a screen basket (2) located within said housing (4), a debris discharge pipe (1) for discharging accumulated and captured debris; a debris extractor arm (3) with a curvature towards the screen extending outwards at a predetermined radius with respective vertical plane, the said debris extractor arm (3) being rotatably driven over the entire length of the screen to create a low pressure between the debris extractor arm (3) and the screen (4) for complete extraction of debris and conveying to said debris discharge pipe (1), a debris outlet valve (10), a debris output pipe (11) and a condenser (12) for heat transfer.